D'Ayer

A CASE

hand up

IN WHICH

OVARIOTOMY

WAS

TWICE SUCCESSFULLY PERFORMED ON THE SAME PATIENT.

BY

T. SPENCER WELLS, F.R.C.S.,

SURGEON IN ORDINARY TO HER MAJESTY'S HOUSEHOLD; SURGEON TO THE SAMARITAN HOSPITAL.

[From Volume L of the 'Medico-Chirurgical Transactions,' published by the Royal Medical and Chirurgical Society of London.]

LONDON:

PRINTED BY

J. E. ADLARD, BARTHOLOMEW CLOSE

1867.

Digitized by the Internet Archive in 2019 with funding from Wellcome Library

ACASE

IN WHICH

OVARIOTOMY

WAS

TWICE SUCCESSFULLY PERFORMED ON THE SAME PATIENT.

 $\mathbf{B}\mathbf{Y}$

T. SPENCER WELLS, F.R.C.S.,

SURGEON IN ORDINARY TO HER MAJESTY'S HOUSEHOLD; SURGEON TO THE SAMARITAN HOSPITAL.

Received Oct. 6th.—Read Nov. 13th, 1866.

In the forty-sixth volume of the 'Transactions' of this Society a case is published in which I performed ovariotomy, and removed the right ovary of a patient whose left ovary had been removed nine months before by another surgeon. This patient died on the seventh day after the second operation.

In recording that case I stated that Dr. Atlee, of Philadelphia, had successfully performed ovariotomy upon a patient whose opposite ovary had been removed sixteen years before by Dr. Clay, of Manchester. I have since heard that Dr. Frederic Bird has operated for the second time unsuccessfully upon a patient from whom he had removed one ovary fourteen years before. I have not heard of any case in which ovariotomy has been twice successfully performed upon the same patient by the same surgeon, except that which is now submitted to the Society.

I performed the first operation in the Samaritan Hospital on the 15th of February, 1865. The patient was an unmarried schoolmistress, aged 24, who was admitted on the 29th of December, 1864. She was feeble, and had a strumous appearance, with a hectic flush on each cheek. Her extremities were habitually cold, but there was neither ædema nor varicose veins of the lower extremities. Occasionally she had a troublesome cough, and expectoration was free, especially at night; but there were no night sweats. On percussion, the left side of the thorax was duller than the right, and expiration was a little prolonged in the left lung. Dr. Parson, who examined the chest carefully, thought that there was "no tubercle, unless in small quantities and scattered." The heart's sounds were normal, but the heart was displaced upwards, the apex being felt between the third and fourth ribs. The liver, stomach, and transverse colon were also displaced upwards. The urine was of low specific gravity, about 1015, but contained no albumen. The whole abdomen was occupied by an irregular tumour, in some parts of which fluctuation was perceptible.

The patient's parents were healthy; but three of her sisters had died of phthisis. She herself had always enjoyed good health, and had menstruated regularly up to Christmas, 1863. About that time her body began to enlarge without any known cause; pain in the left side became tolerably constant, and occasionally acute. By March, 1864, the swelling was chiefly felt on the right side of the abdomen; it steadily increased in size and became fluctuant. In October, 1864, and again in November of the same year, Dr. Robbs, of Grantham, tapped, and on each occasion drew off about twelve pints of clear viscid fluid. After her admission to the hospital in December, a little swelling of the left leg was observed. On the 4th of January, 1865, I tapped and removed seventeen pints of fluid. After the tapping, crural phlebitis in the left side increased, and the leg and thigh were much swollen and very painful. The heart and liver descended a little, and the general health improved; but the cyst refilled rapidly, and on the 30th of January I tapped

again and removed eighteen pints of whitish glutinous fluid, similar to that before evacuated. After this tapping, groups of cysts, irregularly disposed, and evidently adhering in some places to the abdominal wall, were felt filling the whole of the hypogastric region, and on the right of the median line, above the umbilicus, extending nearly up to the sternum.

The uterus was high and to the left side; its mobility was restricted. The os was small and virginal; the tumour was felt to the right side of the uterus, pushing that organ to the left, but the tumour was scarcely below the brim of the pelvis. After the last tapping the heart beat a full inch lower than it had done before; but the apex of the left lung was still duller than the right.

Although the feeble state of the general health, the displacement of the thoracic viscera, and the family history, did not augur favorably for ovariotomy, it was so clearly the only resource that it was performed on the 15th of February, after consultation with Dr. Routh. An incision was commenced one inch below the umbilicus, and carried downwards for five inches: there were extensive adhesions between the cyst and abdominal wall, above and to the right of the incision, extending to the brim of the pelvis, but they gave way to the hand. Having tapped and emptied a large cyst, and broken down a second within the first, the tumour was drawn out, and a piece of adhering omentum was separated. The pedicle was three to four inches in length, extending from the left side of a long thin uterus; it was secured in a small clamp, and left outside without traction. There was a little oozing from the separated adhesions. The blood was carefully sponged away, but no vessel required ligature. The right ovary was felt to be healthy. The wound was closed with five deep and three superficial sutures.

The patient rallied well, complained of but little pain, and only required one opiate. The stitches were all removed on the third day,—the clamp on the eighth day. The bowels acted for the first time on the thirteenth day, but there had been no uneasiness from the prolonged constipation. She

left the hospital four weeks after the operation, and returned to the country in good health.

About twenty-two pints of fluid were evacuated at the operation, and the more solid remainder of the tumour weighed about seven pounds. The following description of this part of the tumour is by the late Dr. C. G. Ritchie.

"The great bulk of the tumour is made up of five or six large cavities, whose dissepiments have been cut through or torn through during the operation. The walls of these cysts are from half an inch to two inches thick, but they owe their thickness entirely to the presence of innumerable vesicles, some of which are of the size of a pea, others that of a pippin. The vesicles are for the most part diaphanous, but in almost every one of them is to be observed a white streak, which examination shows to be contained in the jelly-like contents and not in the translucent wall. Some of the cysts, instead of being diaphanous, are quite white; the contained fluid in these has much the appearance of milk. Some of the cysts are set so closely together that they considerably modify the shape the one of the other; others, again, are solitary and spherical. The outer tunic of the tumour is of course peritoneal; it is marked with traces of inflammatory adhesions. The remains of the pedicle consist of a double layer of broad ligament, of the ovarian vessels, and the Fallopian tube."

The patient remained extremely well for more than a year after the first operation. On the 14th of February last she wrote to me as follows: "A year having elapsed since my operation, I am thankful to tell you that I am quite strong again, and have never taken any medicine since I left the hospital. I am a wonder to myself when I consider how dangerously ill I was." I did not hear of her after this until she came to town and called on me, on the 6th of August, when I found a semi-solid tumour of the right ovary, reaching up to the false ribs on the right side, in the centre to two inches above the umbilicus, and extending towards the left side half way between the umbilicus and anterior superior spine of the ilium. The uterus was freely moveable.

She said she had not noticed any increase in size for more than a month, but had felt pain in the right side in the spring. The catamenia had been regular till a month ago, but latterly had become scanty. At the periods in April and May dysmenorrheal pain was excessive. There was some cough, but no very urgent symptom, and she returned to the country to consider my advice to submit again to ovariotomy before her general health became seriously impaired. About a fortnight later, on the 24th of August, her sister wrote to tell me that the patient's cough had become very troublesome, and she was so much weaker, and generally so much worse, that if she continued to lose her strength she would not be able to go through the operation. As the Samaritan Hospital was closed for repairs, a room in the neighbourhood was procured, and the patient came to town on the 29th of August. The tumour had grown very rapidly, dyspnœa and cough were very troublesome, temperature in axillæ 101°, Fahr., and urine scanty. She had begun to perspire a great deal at night. The catamenia were expected in ten days. Careful examination of the chest failed to detect anything not explicable by the displacement upwards of the diaphragm by the ovarian tumour, which just reached the ensiform cartilage. As there was no cyst large enough to tap with any hope of affording even temporary relief, I performed ovariotomy the day after she arrived in town, the 30th of August, 1866, just eighteen months and a half after the first operation. Professor White, of Buffalo, United States, and Dr. Hjort, of Christiania, were present. I was assisted by Dr. Bowen and Dr. Wright, and Dr. Junker administered chloroform. Bearing in mind the slow and imperfect union in my former second operation, when I made the incision very near the cicatrix of the first operation, I made it in this case an inch and a half to the right of the cicatrix (which was exactly in the middle line), and carried it from one inch above the umbilical level downwards for five inches. Its lowest point was about half an inch higher than the level of the lowest point of the cicatrix. Three arteries, one of considerable size, were divided near the lower end of the incision, beneath the

divided muscle, and were tied before the peritoneum was opened. A thin-walled compound cyst was closely adherent all over its anterior surface, but the adhesions yielded easily to my hand. I introduced a large trochar, but the cysts were too small and the contents too viscid for any fluid to escape. I accordingly opened the tumour, broke it up inside, pressed out a great deal of its viscid contents, and then withdrew the remainder, after separating a piece of adhering omentum. A broad thin pedicle extended about two inches from the right side of the uterus. The uterus was in its normal position; but the pedicle of the tumour removed at the first operation passed from the left side of the uterus and adhered firmly to the lower angle of the cicatrix in the middle line of the abdominal wall. The pedicle of the tumour about to be removed was enclosed in a broad clamp, and the tumour was cut away; three omental vessels were tied, and the ligatures cut off short. There was very little bleeding, but as some ovarian fluid had escaped, the peritoneal cavity was carefully sponged out. The pedicle on the left side interfered a little with this process, but it was continued until the sponges came quite clean from the lowest part of the space between the uterus and rectum. Finding that there would be considerable traction on the uterus and broad ligament if the clamp were kept outside, I determined to apply the actual cautery and burn off the portion of cyst left above the clamp, and be prepared to tie any vessel which might bleed on removing the clamp. Protecting the abdominal wall by two shields of talc-a most perfect nonconductor of heat-I used three or four hot irons, and as on separating the blades of the clamp there was no bleeding, the compressed and seared pedicle was allowed to sink into the pelvis. The wound was closed by silk sutures. The fluid or jelly-like substance removed with the fragments of the broken-up tumour, together measured eighteen pints. following description of the tumour is by Dr. Junker.

"The tumour consisted of an oblong mass, divided by delicate fibro-membranous septa into numerous chambers or loculi of various size. These septa, as well as the main wall,

were exceedingly thin and friable; so much so that the tumour broke up into fragments on very slight pressure. Some portions of the main wall and of the septa were very vascular, and covered with what appeared to the naked eye circumscribed round or oval red spots, having diameters varying from one to three lines. Under the microscope, however, these spots proved to be a dense capillary network, with well-defined abruptly terminating outlines. The interior of the loculi was in many places coated by a true tubercular deposit, often corresponding in size and situation to the red spots just described. In other places the tubercular exudation was more profuse, and some of the lesser loculi were entirely filled by yellow tubercular masses. Genuine tubercles, softening, or in a state of cretification (Verkreidung, of Rokitansky), were also found imbedded in the stroma. some places the septa were softened or destroyed by the tubercles. The loculi were filled with a thin reddish or yellow, slightly ropy fluid, which in some of the chambers appeared more turbid from the presence of minute tubercles suspended in the fluid."

The progress of the patient after the second operation was quite as satisfactory as after the first. There was rather more pain and sickness during the first thirty-six hours after operation, and three opiates were required during the first twelve hours. After the second day all unfavorable symptoms ceased, and she made a most satisfactory recovery. the second day I left town, and Dr. Junker carried on the after treatment; he removed the stitches on the third day. The wound was well united, but there was an appearance of commencing suppuration around the ligatures left on the superficial vessels. There was no more sickness, and the cough had entirely disappeared. On the sixth day there was some purulent discharge beside the ligatures, but it ceased on the ninth day, when the ligatures came away. The bowels acted on the twelfth day—the pulse, respiration, and temperature by that time having reached the normal standard. Before the operation the pulse was 108, respirations 20, temperature 101.4. The following table from

Dr. Junker's notes gives the range on each day after operation until the bowels acted and the normal standard was maintained.

		Temperature.	Pulse.	Respiration.
Day of operation	4	101.4	112	32
First day after	•	100.4	98	22
Second ,,	٠	99.5	86	20
Third ,,		100.4	92	24
Fourth ,,		99•0	90	26
Fifth "		99•4	88	20
Sixth ,,		100.3	100	24
Seventh "		99.2	84	20
Eighth "	٠	99.4	78	22
Ninth ,,		98.8	84	20
Tenth ,,	٠	98.2	84	22
Eleventh ,,	•	99.4	94	24
Twelfth ,,	•	98.4	84	22

Morning and evening observations were taken, but only the highest range each day has been given in the above table. The fall in temperature, pulse, and respiration after the operation is remarkable and very unusual. The slight elevation on the third day before the removal of the stitches is very common. So is the rise on or about the sixth day when there is any superficial suppuration about the wound, as well as the rise just before the bowels are relieved for the first time. After the bowels acted, strength was rapidly gained, and the patient returned by railway to Lincolnshire twenty-nine days after the operation.

Note added November 13th, 1866.—I have heard from her twice since her return home. The last letter is dated November 10th, 1866. She says, "I think upon the whole I feel as well as I did after my first operation. My voice is stronger. I can sing the upper notes with greater facility than formerly. I can sing from A up to C natural." I was curious to have the range and power of the voice observed after the removal of both ovaries, and it could be done with unusual accuracy in this case, as the patient is a teacher of singing.

Many circumstances mentioned in the history of this case

are suggestive of some remarks upon the relation between tuberculosis and ovarian diseases; but this subject is of too much importance to be treated incidentally, and I shall therefore conclude by a few remarks upon the comparative frequency of the disease in one or both ovaries, and on the appearance of disease in one ovary after the other has been removed.

Some writers on ovarian disease have asserted that the right ovary is much more frequently diseased than the left, and that coexisting disease of both ovaries is extremely rare. But, on examining the grounds for these assertions, we find that they are principally based upon examination of patients during life, or patients who have not been submitted to ovariotomy.

When we come to examine the result of post-mortem examinations we find (as a very little reflection would lead one to expect) that, as there is no anatomical or physiological reason why the right ovary should be more frequently affected than the left, so, in fact, one ovary is found to be diseased as often as the other.

Of 80 cases collected by Dr. West from Scanzoni, Lee, and his own notes of post-mortem examinations, in 28 the disease was on the right side, in 26 on the left side, and in 26 both ovaries were diseased—so that in about one third of the cases both ovaries were diseased. In 1865 Scanzoni again drew attention to this subject in the Würzburg 'Medicinische Zeitschrift.' In a paper 'On the Relation of Disease of both Ovaries to the Ovariotomy Question,' he gives the result of an examination of the reports of post-mortem examinations for the previous fourteen years by his colleagues Virchow and Förster. These records were examined with the sole object of ascertaining in how many cases one or both ovaries were diseased—and in 99 cases of ovarian disease it was found that in 48 one, and in 51 both ovaries were diseased—so that in more than half the disease was on both sides. The tendency to disease of both ovaries appears to be greater before the age of fifty than in older women. Of 52 women under fifty, both ovaries were diseased in 31;

one ovary only in 21 (59 per cent. to 40); of 44 women above fifty, both ovaries were diseased in 17 only, while one ovary was diseased in 27. Thus, under fifty, we had both ovaries diseased in 59 per cent.; above fifty, only in 38 per cent.

But it must be remembered that any conclusion drawn from post-mortem examination would in all probability differ very widely from results observed in ovariotomy. The first series of facts shows what may be expected when ovarian disease has proceeded to its natural termination, or has only been modified by palliative treatment. The other series shows what may be expected when the patient is subjected to radical treatment before the disease has advanced to its latest stages. All observation tends to the conclusion that disease begins in one ovary and advances to a considerable extent in that ovary before the other is affected, and that in about half of the cases it proceeds even to its fatal termination without any disease occurring in the opposite ovary.

If, then, in only about half of the cases where ovarian disease has reached its *latest* stage, disease of both ovaries is found, we might expect that in *earlier* stages of the disease both ovaries would be much less frequently affected; and, so far as my observation has gone, this is the fact. In the first 150 cases in which I performed ovariotomy I only removed both ovaries in seven cases. In three other cases the ovary not removed presented some indications of disease in a very early stage, but not sufficient to warrant its removal.

It is not improbable that in some of the earlier cases slight disease of the opposite ovary may have been overlooked; but, making every reasonable allowance for such error, it is not probable that when ovariotomy is performed both ovaries will be found diseased in more than 8 per cent. of the patients. Scanzoni thinks that as both ovaries have been so seldom removed (he finds only 25 on record), operators must either have overlooked disease of the second ovary or thought it insignificant, or believed that the removal would add too much to the danger. Of 25 recorded cases 11 only recovered, and 14 died, a mortality of 56 per cent.;

whereas, of 468 cases, where only one ovary was removed, the mortality was only 44 per cent.

We require additional facts before we can estimate the increased risk added by the removal of the second ovary. I may just mention that of the 7 cases just mentioned, 4 recovered and 3 died.

As to the frequency with which, after successful ovariotomy, the ovary not removed, but examined and found healthy, becomes diseased, besides the case just related three others have come under my notice.

In my second case, operated on in 1858, the patient remained well for seven years. Then disease of the opposite ovary appeared, so evidently of a malignant character, that no operation was thought of, and soft cancer was found after death.

In the third case, also operated on in 1858, the patient died of peritoneal cancer ten months after operation, and disease had commenced in the remaining ovary, which was enlarged to the size of an apple.

In my 43rd case, operated on in 1862, disease of the opposite ovary came on two years afterwards and was treated successfully by vaginal tapping and drainage. The patient is now well. I have not heard of any other of my patients in whom disease of the second ovary has appeared after successful removal of the first.

Sometimes during an operation, after removal of one ovary, some slight alteration in the other may be observed, and the question of removal of the second ovary may arise. In more than one of my cases this question has arisen. In narrating the 112th case of ovariotomy in the first volume of my work on 'Diseases of the Ovaries,' after recording the removal of the right ovary from a young lady, aged 19, I continue, p. 307.

"The left ovary was enlarged to nearly double the normal size. Two follicles, about the size of cherries, were distended by clot. These I laid open, turning out their contents.

The operation was peculiar on account of the doubt as to the treatment of the left ovary. I resolved after con-

sulting with Dr. Greenhalgh (who was assisting me) not to remove it, because—

"a. The ligature which would have been necessary would

have added seriously to the risk of the operation.

"b. It is not certain that disease was present in the ovary, or that it would progress, and if it did a second ovariotomy could still be done.

"c. It seemed hard to unsex a girl of nineteen. Perhaps the clots might have been left alone, but turning them out could do no harm, and might do good."

This operation was performed in November, 1864. This patient recovered well, went into the country four weeks after operation, was married in October, 1865, and is now the mother of a child, born in September last, twenty months after operation, and eleven months after marriage.

The age and conjugal condition of the patient, and the amount of disease in the ovary, must of course be the chief guide to the surgeon in inducing him to leave or remove an ovary in any doubtful case.

When a surgeon has removed a large diseased ovary and the woman recovers, he has in very many cases the great satisfaction of feeling that his patient has been restored to perfect health. Experience has proved that the remaining ovary generally carries on its functions, and that the woman may become the mother of healthy children of both sexes. The patient is not mutilated as by the amputation of a limb, nor does the general health suffer as it frequently does after the greater amputations.

There certainly is nothing like the tendency to recurrence which there is after the removal of malignant tumours, probably by no means so frequent occurrence of disease elsewhere as after successful ligature of a diseased artery, or disease of the opposite lens after successful removal of one cataract, or formation of a second calculus after a removal of one by lithotomy or lithotrity; and certainly no such prolonged suffering as the chronic cystitis which not unfrequently follows these operations.

The rule is that by a successful ovariotomy the patient is

restored to a state of health so perfect that she and her friends are as surprised as they are gratified. But there are exceptions to this rule. In some cases a disease believed to be innocent proves to be malignant, soon recurs, and proves fatal within a few months, or even within a few weeks after apparent recovery. In other cases the ovary which is left untouched because it is believed to be healthy, or so slightly diseased that its removal is uncalled for, becomes the seat of disease. In what proportion of cases this occurs we have as yet no means of knowing. It is only within the last ten years that the operation has been performed sufficiently often to furnish data for reliable statistics, and it is difficult to ascertain, even in some of these later cases, what has been the state of the patient's health for some years after operation. But it would be unreasonable to expect that in all cases the ovary left in the body would remain healthy. It is for future observation to decide how often and in what class of cases a recurrence of disease may be feared. It is satisfactory, however, to learn that if the remaining ovary should become diseased, the first operation need not add much to the difficulty of the second, and that of four cases in which a second ovariotomy has been performed, two have proved successful.

